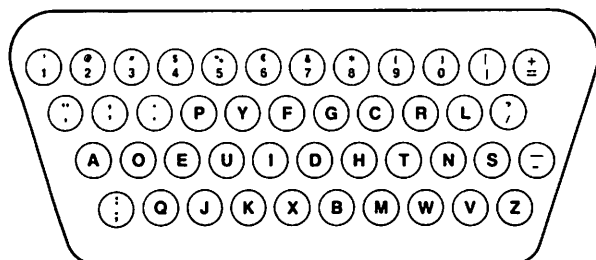


# Quick Strokes

Subscription, per year \$10

Now officially the organ of the Dvorak International Federation, issued in June, September, December, and March. This is No. 2 of Vol. X, Whole Number 34.

FALL, 1982



## This is the consensus

The above diagram conforms to the forthcoming American National standard alternative arrangement for correspondence on forty-four-key keyboards. The square brackets are designated in the draft proposal as "secondary use" characters, with the half and quarter called primary.

Compared with the conventional alphanumeric keyboard arrangement, this one reduces finger travel by ninety per cent. It provides a left-right, left-right rhythm that accelerates input and improves accuracy. The flow of strokes from finger to finger of the same hand, with and without an intervening other-hand stroke, was strictly calculated. In general, the flow is inboard, that is, toward the thumb.

The assignment of the th sequence to the right three and fore fingers is right. They are nimble, be the operator right handed or left handed. It also occurs, and it goes a trifle more slowly. This builds in a momentary delay for the vowel input in hat, hot, het, etc., and maintains the rhythm. Sh, nh, rh, wh, and ch all are stroked with inboard flow.

The relative locations of n and d are accounted for in a similar way.

## CM1 single-board computer can handle alternative keyboard layouts

Charles Chandler, of Chandler Microsystems, Mission Viejo, California, telephone 714-770-7892, caught the *Quick Strokes* address in *Electronic News* and promptly reported, "Our new CM1 single-board computer can easily handle alternative keyboard layouts."

He enclosed a CM1 configuration guide as of May, 1982 — terse and technical but not beyond our readers' scope — consisting of two sheets of text and a photo diagram of a circuit board.

Mail address 22051 Cosala, Mission Viejo, CA 92691

## Report from the field

by Lenora White

Colorado State University, Fort Collins, has just acquired a new Control Data 205. Haven't heard of any new terminals or card punches to go with, though. Maybe they'll add some software and let us make do with the old ones, all qwerty, of course.

With my job as a Student Data Analyst, I spend several hours per week using the computer terminals. At home I use my Dvorak for papers and occasional letters. I have no trouble going back and forth, and my speed on both terminals has improved with use.

One interesting finding, however — my speed increases faster on my Dvorak keyboard than the other, and my fingers don't get nearly as tired. I attribute the latter to the decreased finger motion. I sure don't dread typing a ten-page term paper as much as my fellow students.

## From MONOB YAG-61

I have been using a Dvorak keyboard for a year, and I love it! — Lt. J.C. Mitchell, Cape Canaveral, Florida.

## DIF booth and panel are right on target at Communications in the Future show

The Dvorak International Federation booth at the World Future Society general assembly in Washington, D.C. in July displayed word-processing equipment, computers, and typewriters, all with the alternative arrangement of characters on the keyboards, convincing evidence that the state of the keyboard art has gone beyond the conventional arrangement.

Barbara Blackburn, the unchallenged world champion keyboard operator, demonstrated her skill at frequent intervals. "A great show-person," says Virginia De Ganahl Russell, president of DIF and organizer of the booth and the panel discussion

Russel credits Vickie Hansen, of the Portland, Oregon, Vydec office, with fine work in shipping a Dvorak-keyboard Vydec 1800 to D.C. to be "married" to an Exxon 500 model for the show. Mike Schmitt, of Chicago, shipped a Dvorak-arranged Olivetti typewriter by air. The Southeast Apple computer Division loaned an Apple III. Two Apple pluses were also on display. The IBM corporation loaned a Dvorak-arranged Selectric III and a Smith-Corona loaned a Coronamatic with ASK.

Attending the booth, besides Blackburn and Russell, were Claude Kagan, Richard Sidler, Lloyd Burstein, Dick Land, and Kenneth Russell.

At the panel discussion as well as at the booth, the most frequent question was "How can we get the alternative arrangement into the schools?" Schools are already equipping with computers and word-processing units. If the student brings the right disk and a starting manual, there would rarely be any barrier.

The theme of the assembly was Communications and the Future. The main speaker at the general sessions was Buckminster Fuller.

## Basis Incorporated announces a hardware method for converting to a Dvorak variant

A six page brochure from Basis Incorporated, of Los Gatos, California, announces an EPROM (erasable, programmable read-only memory) that will convert Apple II computers to an arrangement of characters which approaches the truly ergonomic Dvorak.

On page 2 we find "ASK layout" and "Jumper in position II." Page 5 carries a discussion of the Dvorak advantages, and page 6 shows diagrams for the ASK keyboard layout and the ASK keyboard in caps lock mode. The apostrophe is assigned, strangely, to the upper-case shift condition and is paired, arbitrarily, with the figure 7.

The postoffice box for Basis is 2029. The encoder is available at Apple dealerships everywhere.

## Dual-keyboard Vydecs at State Farm Salem

Four new Vydec 1400-model word-processing units have been delivered to the Salem, Oregon, word-processing center of State Farm Insurance Companies, and one of another model, a Vydec 1800, also with the feature of access to the alternative arrangement, was to be delivered soon. Thus all the units at that center will be set up for Dvorak-skilled operators or those who would like to acquire that skill.

The manager of the center is Ardeth Jerde, State Farm Insurance Co., 4600 25th Avenue NE, Salem 97313. The turnover is low; nevertheless, Dvorak-skilled operators please take note!

## Erratum

In *Quick Strokes* 34, Summer, 1982, at page 1, "Draft proposed," fourth paragraph, third line, the designation of the proposal for standard conventional keyboard arrangements should read X4.23. Good catch, Mr. E. M. Greene, of Ridgecrest, California!

## How to convert your Apple III to Dvorak

(By Kevin Everett FitzMaurice)

The Apple III is the first RAM based machine. Everything is defined by software when you turn it on. It was also designed to make it easy to change what the software will define it as, before, or even after, it is on.

In order to change your keyboard layout first load your UTILITIES program. From the main menu choose option "S — System Configuration Program (SCP)" by either typing "S" and hitting the return key or moving the cursor to "S" with the arrow keys and hitting return. From the SCP menu choose option "C — Change System Parameters." This puts you in the CURRENT SYSTEM PARAMETERS menu. In this menu choose option "4 — Keyboard Layout." Now you get a prompt for the pathname of the keyboard layout you want. Apple thoughtfully included a file on the SYSTEM UTILITIES DATA diskette called KEYBOARD LAYOUT/DVORAK. So remove your UTILITIES disk, and put your SYSTEM UTILITIES DATA disk into the built-in disk drive. Now type, at the cursor position, ".D1/KEYBOARD.LAYOUT/DVORAK." Once you see "DVORAK" displayed on the screen, remove the DATA disk and return the UTILITIES disk into the built-in drive. Now push the escape key to return to the CURRENT SYSTEM menu, and hit escape once again to return to the SCP menu. Once back in the SCP menu choose option "R — Read a Driver File." Here you want to load your SOS.DRIVER file from the software you want to change to the Dvorak keyboard. In my case, I use one set of drivers for all my software. So I arbitrarily choose to put in my ACCESS III communication disk into the built-in drive. Then I typed ".D1/SOS.DRIVER" and hit return. Once the drivers are read into memory and are displayed, you want to go back to the SCP menu by pressing escape. In the SCP menu choose "G — Generate New System." You will now see the message "System Validation in progress." Next, if you did everything correctly you will see the message "— System Validation Completed —." SCP then prompts you for the file name to store the new system on. Just type in ".D1/SOS.DRIVER." Now put your Apple Writer III disk in the built-in drive and hit return. SCP will ask if you want to write over the SOS.DRIVER file that is already on your disk. You respond with a "Y", and your new system is put on the disk. Now all you need do is remove your Apple Writer III disk, and put in your Business Basic disk, or any disk with a SOS.DRIVER file on it that you want to use the Dvorak keyboard with. Next press return, answer "Y", and it too will now be configured for Dvorak.

In the future you will only need to copy a SOS.DRIVER file from any one disk that has the Dvorak keyboard to any new ones that you want it on. Of course, you only have to load a disk with the proper keyboard layout to use either the Dvorak or the dirty QWERTY. For example if you like the Dvorak, but some unreasonable person wants to use the QWERTY, all you need do is to have a copy of your programs with the Dvorak SOS.DRIVER for yourself, and one with the QWERTY SOS.DRIVER for the die-hards. It is also easy to move the key caps around, as they just press in place. I use the Dvorak keyboard with Apple Writer III, ACCESS III, Business Basic, and Apple III UCSD Pascal. Apple claims that ACCESS III is the first, and so far the only, communications software package to support the superior Dvorak keyboard. Have fun!

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## South Australia users are interested

"Many people in our Sorcerer Users' Group of South Australia might be interested in changing to the Dvorak arrangement," writes Valdis Dunis, of woodville West, South Australia. He is newsletter editor for the group.

## In memory of Harriet Davis

The death of Harriet Tuve Davis, 77, of Sacramento, California, on August 17, 1982, leaves a gap in the ranks of the Dvorak movement that will be hard to close. Wife of Philip Davis and mother of one son, Roger, of Summerland, California, she was also a business woman and journalist.

At age 65, she switched, smoothly, to a Dvorak arrangement on her keyboard. She was well versed in ergonomic keyboard design and was a member of an American National Standards working group, X4DSK.

Cause of death was an aneurism.

## Next Quick Strokes, December

The forerunner of the many brief treatments of Dvorak (alternative) keying in electronics trade magazines in 1982 was Prof. E. B. Montgomery's article in *Computer*, in March. Titled "Bringing Manual input into the 20th Century: New Keyboard Concepts," it appears on pages 11 to 18.

Montgomery is a professor of medical computer science at the University of Texas Health Science Center at Dallas. His discussion of conventional and alternative keying leads up to a presentation of an arrangement of his own for "sweep typing." The keys are not stroked but brushed.

Such input is feasible. It has no track record, and its theoretical support seems weak. The only operator skills that would carry over are spelling and style.

R.S. McCuiston's "Handi-Keys" provides a method for an operator to devise a character arrangement to suit his own handicap.

We have no further release on the Videx Dvorak EPROM, which is a hardware method for changing a computer keyboard to the better arrangement. Videx is in Corvallis, Oregon.

On the Magic Keyboard from Southern California Research Group, Goleta, see the "High School student . . ." story, page 4, this issue.

## 1976-09-12

For any American,  
12-9-1976 = December 9, 1976  
For any European,  
12-9-1976 = 12 September 1976

Why? Because there was no international agreement on the writing of dates. Whenever the month is spelled out, there is no problem: 12 September = September 12, but a date written in numerical form can lead to confusion.

There is now a way to dispel this confusion. ISO has elaborated an *International Standard* establishing a logical descending numerical order:

| YEAR | MONTH | DAY |
|------|-------|-----|
| 1976 | 09    | 12  |

This means 12 September 1976 the world over.

ISO has published over 3000 *International Standards* all of which have the same goal: better communication, better understanding between people of all nations.



Case postale 68  
1211 Genève 20  
Switzerland

September 1976

**FOR SALE** - Coronamatic 2200 electric portable typewriter with ASK Dvorak keyboard arrangement. Linda Friedly, business phone 212-484-9917, home 212-741-2296, 100 Bank St., New York, NY 10014.

**HANDI-KEYS CUSTOM DESIGNS KEYBOARDS FOR TRS-80 MODEL II.**  
ENTER TEXT FOR ANALYSIS OF KEYS USED BY EACH FINGER AND HAND.  
MACHINE LANGUAGE DRIVER CHANGES KEYBOARD TO DVORAK, ONE-HANDED,  
OR USER-DEFINED. ANALYZE TYPING LESSONS.

DISKETTE AND INSTRUCTIONS FOR \$36.

RONALD MC CUISTON  
5795 ADELYN ROAD  
PENSACOLA, FL 32504

**STARTING MANUAL FOR ALTERNATIVE KEYING** — Titled *Simplified Keyboard Supplement* and written by the late, great August Dvorak and others, it contains Lessons 1 to 5 and 16 to 19.

It merges with any full-length typing manual or with practice material of your choice. Three dollars at Speedy Keyboard Ent. Inc., P.O. Box 643, West Sacramento, CA 95691. In California, add 18¢ tax.

**DVORAK SELECTRIC ELEMENT** — Please specify pica or elite type; please specify whether for a Selectric, or a Selectric I or II, or a Selectric III. Arrangement is close to the classic Dvorak, digits reading, left to right 7, 5, 3, 1, 9 for the left hand, and right to left, 8, 6, 4, 2, 0 for the right hand. \$111 dollars at Speedy Keyboard Enterprises, Inc. P.O. Box 643, West Sacramento, CA 95691, telephone 916-446-3377. A starting manual, the *Simplified Keyboard Supplement*, is included. Two sheets of 77 half-inch round press-on labels with the alphabet, extra vowels, punctuation, and digits are included. Pairing of digits and special symbols corresponds to the Dvorak Selectric arrangement. Delivery in two weeks after receipt of order and payment. In California, add 6% tax.

## Ready when you are - The Pebble Beach character relocation program

SMARTKEY, an "Intelligent Keyboard" utility for the CP/M operating system, provides a simple and easily reversible method of altering the keyboard of a personal or business computer to the Dvorak layout without hardware changes other than relabelling or transposing the key tops.

SMARTKEY installs a software interface between the keyboard and CP/M which allows the operator to "redefine" the keys. Codes generated by individual keys may be altered at will and keys may be made to generate a sequence of characters at each keystroke. Sets of key definitions can be saved on disk for re-use allowing the logical keyboard layout to be changed in seconds to suite different applications.

SMARTKEY was originally intended to allow keyboards to be adapted to better suit applications software such as word processors, but Dvorak enthusiasts among its purchasers have been quick to seize on its ability to change the logical keyboard layout from the traditional QWERTY.

SMARTKEY is suitable for any machine using the CP/M operating system and requires no hardware or software knowledge to install or use. The program costs \$60.00 (introductory price is \$39.00 to 9/30/82) and is available from FBN Software, 1111 Sawmill Gulch Road, Pebble Beach CA 93953. (408) 373-5303.

## Anybody know about the Soroc?

Donald T. Huffman, of 781 Meadowbrook Road, Morgantown, West Virginia, writes, "I was pleasantly surprised to learn" from the 1982 May Byte "of the existence of a newsletter for us Dvorak users."

His letter was written on a Smith-Corona 2200 with a Dvorak keyboard. "Naturally," he says, "I could be more efficient at learning to type if both keyboards," on his Soroc 120 computer and his typewriter, "were identical."

All we can say is that there must be a way to adapt the Soroc to the alternative input. If you can help Huffman, please do so in writing and mail a copy to Quick Strokes, P.O. Box 643, West Sacramento, CA 95691. The Morgantown zip is 26505.

John W. Carlson, Rt. 1, Box 364B, Kingston, NY 12401 also queries us about the same make and model and "one of George Risk's."

## Wang Dvorak word processing unit is in operation at Bend

Barbara Finley, proprietor of Type-Rite Services, 352 Northwest Federal St., Bend, Oregon, has installed the Wang word processing unit that she sought — one with access to a Dvorak arrangement of characters on the keyboard. Thanks, Barb, for the sample of your neat folder printed in a typewriter face.

## Pregnant suggestions

Tom Booz, of Plantation, Florida, writes, "Why not show editor's name?" L.C. Safford, of Syracuse, New York, suggests a slogan, "The Dvorak arrangement is user friendly."

I did have help, not only from such kind contributors as you but from my ailing but loyal wife. See the obituary on page 2. She pitched in on the copyreading, proofreading, and especially the bookkeeping. She never seemed to want any title but Mrs. When we have circulation and advertising for more pages, a massed head would be in order.

How about "Dvorak, the keyboard that works with you and not against you?" Let's take it up with the Dvorak Federation, Box 128, Brandon, VT 05733.

## Etherton reports on modifying Scripsit for Dvorak keying

"Not that I have a disk system and access to a fast printer, it has become practical to decode Radio Shack's Scripsit program and decipher its keyboard access method," writes Jon Etherton, of Spokane, Washington.

The Etherton Dvorak Scripsit program will be available for Model I or Model III TRS-80 for fifteen dollars on disk only. Customers should send, to Etherton at N 1417 Howard St., 99201, a copy of their Scripsit disk. He will return it with the modified program on it. He will also include instructions for changing the character locations at the keyboard.

## Device provides option — QWERTY, Dvorak, or dual

Gordon Stallings, of Bartlesville, Oklahoma, reports that he markets a device which is just what readers were asking for in Quick Strokes 33 — a convenient means of converting a personal computer to Dvorak keying. It provides three options, namely, Dvorak keyboard, QWERTY keyboard or "automatic." Automatic mode allows switching between the two by stroking a special combination of keys.

The price is \$50. Question — is it portable?

Address Stallings at 1406 Macklyn Lane, Bartlesville 74003.

## About standards, ask ANSI

When *Quick Strokes* has definite word about the long awaited American National standard alternative arrangement of characters on keyboard devices, we will bring it to you, at least if you are a paid subscriber.

A magazine that may scoop us, however, is *Standards Action*, published by the American National Standards Institute, 1430 Broadway, New York, NY 10018. It is biweekly and is mailed as one piece with another biweekly, the *ANSI Reporter*. The way to get onto the mailing list is to ask for it.

## Fitzmaurice cites Papert

"There is an interesting passage on the QWERTY in Seymour Papert's book *Mindstorms*. Papert is the inventor of the Logo computer language. See pages 32 to 35 and 71," writes K. E. Fitzmaurice, of Omaha, Nebraska.

**FOR RENT** — Motion picture film, "Motion Study of the Dvorak Simplified Keyboard," 16mm, black and white, silent, 20 minutes. Old but good. View it more than once, the better to appreciate the difference in hand position. \$10 per week. Order from Quick Strokes, Box 643, West Sacramento, CA 95691.

**STILL AVAILABLE** — with the alternative (ASK) arrangement of characters, the Coronamatic 8000 office typewriter from Smith-Corona at \$535, the Coronamatic 2500 portable at \$439, plus, in California, 6% sales tax. Delivery in 120 days after receipt of order and payment. Speedy Keyboard Ent. Inc., P.O. Box 643, West Sacramento, CA 95691, telephone 916-446-3377.

**FOR RENT** — Videotape, "Typewriters: Dvorak Made a Better One," narrated by Albert C. Kolb, Carmel (California) Middle School, time 14 minutes and 19 seconds. Narrator and secretary demonstrate on interesting and innovative alternative to the standard keyboard. Motivates student interest in the typewriter and in developing skills. In UCA 30 cassette. Per week \$10. Shipping weight 1 lb., 12 ozs. Quick Strokes, Box 643, West Sacramento, CA 95691.



### SCM -ASKs

2500s

Classic 12s

1770 Juarez St., Seaside, CA 93955  
(408) 394-4284

**FOR SALE** — "There is a Better Typewriter Keyboard," reprint of August Dvorak's 1943 article in *National Business Education Quarterly*, 16 pages including some additional material. Staples rusted, paper and printing ok. \$3, first-class postage paid. Quick Strokes, P.O. Box 643, West Sacramento, CA 95691. In California, add tax.

## Book on word processing

Word processing by personal computer is the theme of McWilliams, Peter A., *The Word Processing Book* (Prelude Press, 1982). For some, apparently many, users or prospective users of personal computers, the bookkeeping features are incidental. They want one to write a mailable letter on, or a proposal, a report, a brief, or a contract.

For those who also would prefer an easy-to-learn arrangement of characters on the keyboard, TWPB is recommendable, even though it contains no reference to Dvorak keying. In general, the computers that are best adapted to word processing are also readily convertible to the alternative arrangement.

Source, Prelude Press, Box 69773, Los Angeles, California.

## Exxon features Blackburn

The January, 1982, issue of *Hotline*, an internal house organ of Exxon Office Systems, carries a letter from Barbara Blackburn, with a portrait photo and a facsimile of her Record Certificate from Guinness Superlatives and with an editorial note referring the reader to page 498 of the 1982 edition of the Guinness Book of World Records.

## High school student pitches in

At age 13, Kenneth Russell, of Brandon, Vermont, reached 40 words a minute at a Dvorak keyboard in 18 hours of instruction. Two years later, in 1982, Kenneth is the lead operator on a Franklin computer converted to a Dvorak arrangement with the Magic Keyboard, from Southern California Research Group, of Goleta, California.

The Russell home, 11 Pearl Street, Brandon, is the world headquarters of the Dvorak federation, still known by the acronym, DIF, that its Oregonian founders thought up. Kenneth's mother, Virginia, is now also a Dvorak-skilled operator, as well as being president and chief spokesman for the federation.

Kenneth did not have to self instruct. The local high school typing teacher taught him Dvorak in a regularly scheduled class.

## Newsletter editor writes

"Please send information on the Dvorak keyboard configuration. I would like to use the information for a project with a special graphics display terminal," writes Lary Gary, of Greenboro, North Carolina. Gary is editor of the newsletter of Triad Amateur Computer Society, which meets at the Science Building at the University of North Carolina. Luke Shepherd, telephone 919-855-0108, is president.

## Query from a computer club

As editor of the Belleville Area Computer Club's newsletter, I am interested in information on reconfiguring keyboards for Dvorak keying. We have many personal computers in our club, including Apple, TRS-80, OSI, Heath, Commodore, Cromenco and IBM PC.

Gary W. Cooper, O'Fallon, Illinois.

## Cheer from the sidelines

Carry on with QS and the DIF. Now that computers and word processors are becoming more firmly entrenched, it seems that August Dvorak's efforts will finally bear publicly recognizable fruit in quantity. I might even write a Dvorak program for my Sinclair ZX 81 personal computer (if I can ever figure out how to get at the keyboard-read routines inside...).

Ted Champagne, Ogdensburg, New York

"I'm still 100% sold on Dvorak," Janet Christy Phillips, Corvallis, Oregon.

## Palmer goes ahead and does it

A short note about the Dvorak keyboard in *Dr. Dobb's Journal*, Postoffice Box E, Menlo Park, California, inspired John B. Palmer, of Boonville, California, to write a CP/M (TM) program that would convert each character to the one that is shown in the corresponding location in the photo diagram on page 3 of *Quick Strokes* for 1982 Summer.

Afterward, Palmer writes, "I changed the address and made it a part of the BIOS." He supposes that many readers of DDJ know how to modify the BIOS. The first step consumes 182 lines in the printout. Modifying the BIOS, he says, would take about one more page.

An experienced operator on the conventional arrangement, Palmer attained a usable Dvorak skill between the time when he received the 1982 June QS and the seventh of July. In a few weeks, he may reasonably expect a speed improvement over qwerty. The amount of drill makes a difference, but the lapse of time makes a difference also. The new synapses seem to require some slack time so that they can take root.

## Conference in October on use of small computers

Effective use of small computers will be the theme of a conference on "Using Small Computers: Implementing Integrated Information Systems," to be held at the Hyatt Regency Crystal City, Arlington, Virginia, October 18 to 20, 1982.

Emphasis of the three-day meeting will be on how small computers can be used in areas such as office automation, decision support systems, word processing, training, and graphics.

Two days will be devoted to presentations on such topics as application planning and implementation strategies; selecting systems; using small computers in networks; and integrating communications, video and small computers.

A special feature will be an exhibit of hardware and software for small computers. Time has been set aside for interaction between patrons and successful users.

Infosystems Magazine is the sponsor. For further information, contact Conference Manager, U.S. Professional Development Institute, 12611 Davan Drive, Silver Spring, Maryland, 20904.

## Quick Strokes

Box 643

West Sacramento, California 95691

Telephone 916-446-3377

Philip Davis, publisher